The Basin Pipe Project is working with stock and domestic (S&D) water licence holders across the inland valleys of NSW.

Between 2015 and 2018, over $110M will be invested in new on-farm water infrastructure (water efficiency schemes) to save high security water, improve the reliability of S&D water supplies and make water and land management more efficient.

Up to 90% of S&D water taken from rivers is wasted through evaporation and leakage from old channel and dam systems. The Basin Pipe project minimises water waste by installing new water efficiency schemes - pumps, pipes, tanks and troughs.

Landholders take full ownership of the new schemes and benefit from more easily managed and more reliable stock and domestic water supplies. The amount of water supplied by the water efficiency scheme will deliver their S&D requirements.

In exchange, the water saved by the new water efficiency schemes is transferred to the NSW and Commonwealth Governments to help achieve the water recovery targets for the NSW Murray Darling Basin (MDB).

The Basin Pipe Project is not a buyback scheme. Tank and trough installed to meet landholder’s needs.

**Preliminary design**

Once landholders have confirmed they are eligible, they need work with local Basin Pipe officers or a design consultant to submit a preliminary water efficiency system design that meets the required technical specifications. This factsheet explains that process.

The preliminary design should accurately outline a water efficiency scheme that:

- Delivers all S&D water requirements for current and planned operations
- Includes all the infrastructure needed to deliver those water needs.

DPI uses the preliminary design to decide whether the water efficiency scheme meets the value for money criteria.

If water savings are low, landholders may still be eligible to participate in the Basin Pipe project, however they will need to make a part financial contribution.

**Preliminary planning process**

- Before meeting the project manager landholders should mark up a property map - see [Marking up the property map](#) below.
- Calculate current and future water use using the calculation table in DPI Water’s [How much water do I need for my rural property?](#) Factsheet.
- Based on the marked-up map and water use calculations, the project manager or design consultant will work with the landholder to produce preliminary system designs and costings.
- The landholder will submit the plan and Registration of Interest to DPI Water for assessment.
- DPI will work with landholders to approve the design and make a written agreement to proceed to construction.
Marking up the property map
The property map must show:
• The property boundary and the boundary of the currently watered area ie up to 1.6km from existing dams and tanks.
• Houses, sheds, stockyards, fences, gates and grids
• All roads, tracks and electricity supplies (lines, poles, buried lines and offtakes)
• Water systems – dams, bores, pumps, windmills, pipelines, tanks, troughs
• Aboriginal and European cultural heritage sites
• Native vegetation and other restricted areas
• Hazards

Water Efficiency Scheme map
The water efficiency scheme will be designed to deliver peak rates of demand in different parts of the property. Important considerations:
• Work within the project boundary.
• The currently watered area is up to 1.6km from existing watering points e.g. dams, tanks, channels.
• Design on the assumption that livestock are run in mobs that are rotated around the property.
• Reliability of the water supply – see Source, reliability and quality of water supply below.
• For ease of management, plan to build all infrastructure on ground that has been disturbed e.g. fence lines, roads, easements.
• Watering points should be positioned to use water as efficiently as possible. – see Locating watering points below.
• Locate pump units near available power.

Source, reliability and quality of water supply
Before beginning to design a system, landholders should be sure that they have a reliable, good quality water supply:
• Calculate the water requirements for the property by doing a water stocktake for the whole property. Guidelines on how to do a water stocktake are outlined in DPI Primefact 269 – Stock water – a limited resource
• Check the quality of water from each water source. Guidelines on water quality requirements are outlined in DPI Primefact 326 – Water requirements for sheep and cattle

Locating watering points
The location of watering points can have significant effects on land use. Generally, watering points should be:
• Centrally located within the service areas
• Away from fences, corners, gateways and shade trees
• Consider wind direction
• Positioned:
  o To meet the watering radius
  o For easy drainage and cleaning
  o To prevent soil erosion and land degradation

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